

AMENDMENT
Serial Number: 09/245,101

IDS Number 113082 (Kraml 5)
Docket Number: 3037-4222

sensor recording the status and the sensor reporting the status is a variable component of said at least one received paging message.

57. (Amended One Time) The system of claim 55, wherein a duration of time between the sensor recording the status and the sensor reporting the status is a predetermined minimum for performance of said command by said remotely located computer-controlled device.

REMARKS

The above Amendment and following remarks are responsive to the points raised in the Office Action dated July 17, 2002. The Applicants respectfully request entry of this Amendment, favorable reconsideration of this case, and early issuance of a Notice of Allowance.

Status of the Claims

Upon entry of this Amendment, claims 1-4, 9-10, 12-14, 19-20, 22-23, 25-31, 36-41, and 46-57 will have been rewritten, and claims 1-57 will be pending in the application. Claims 1, 28, and 55 are independent claims.

Response to the Objection to the Drawings under 37 C.F.R. § 1.83(a)

The Examiner rejected to the drawings under 37 C.F.R. § 1.83(a) because the drawings did not show the incoming and outgoing message structure as recited in claims 1-57. In response, the Applicant submits proposed corrections to Figure 1 and Figure 2 showing every feature of the incoming and outgoing message structure as recited in claims 1-57. In addition, the Applicant amended the specification to reflect the new element numbers shown on the proposed corrections to Figure 1 and Figure 2. The proposed corrections to Figure 1 and Figure

2, and the amendments to the specification do not introduce any new matter.

Response to the Rejections under 35 U.S.C. § 102(b) and 103(a)

Claims 1-11 and 28-37 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Moughanni et al., United States Patent Number 5,608,655 (hereinafter “Moughanni”). Claims 11-27 and 38-57 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Moughanni Moughanni, in view of Snyder, United States Patent Number 5,588,038 (hereinafter “Snyder”). Due to the common core of these rejections, the Applicant will treat them together for the sake of brevity. The Applicants respectfully traverse these rejections.

Moughanni discloses for a wireless paging device a system and method for controlling an electro-mechanical device at a remote location. The control of the electro-mechanical device includes, for example, turning a thermostat on or off, turning off an iron accidentally left on, or turning on a car heater before a drive home. The wireless paging device includes a receiver to detect when a particular electro-mechanical device is being remotely accessed. If the electro-mechanical device is remotely accessed, a data processing system stores an incoming message in a buffer and subsequently determines if the incoming message is a command or another type of communication. The data processing system will process a command to provide the proper control signals for controlling the functionality of the electro-mechanical device.

Snyder discloses a system and method for communicating with a remote location such as a vehicle or building. The system includes a calling transceiver, a central transceiver, and a satellite. The calling transceiver and the central transceiver control a device located in the remote location by sending transmissions to a forward wireless communication via the satellite

and to a pager transceiver located in the remote location. The pager transceiver trips an electro-mechanical device as a result of receiving the transmission. The pager transceiver also has the capacity to transmit reverse wireless communications through the satellite.

Independent claims 1, 28, and 55, as presently claimed, recite the operation of a remotely located computer-controlled device that performs at least two actions based on a specific command included in a paging message. A computer-controlled device is not analogous to an electro-mechanical device because a computer-controlled device is a digital device that is capable of performing more than a single action in response to a request. In contrast, Moughanni discloses a system and method for controlling a device that is merely an electro-mechanical device. The presently claimed device is more capable than the Moughanni electro-mechanical device. The Moughanni device is not analogous to the presently claimed remotely located computer-controlled device because the Moughanni device only performs a single action in response to a request sent by the wireless paging device (e.g., turning a thermostat on or off, turning an iron off, or turning a car heater on. Thus, Moughanni alone does not teach or suggest the Applicants system and method of operating a remotely located computer-controlled device. Since Snyder does not make up for the shortcomings of Moughanni, the Applicant respectfully submits that Moughanni and Snyder, taken either alone or in combination, do not teach or suggest the independent claims 1, 28, and 55. Thus, the Applicant respectfully submits that the Examiner should withdraw this rejection as to independent claims 1, 28, and 55.

Claims 2-27, 29-54, and 56-57 depend from independent claims 1, 28, or 55. For the previously stated reasons, independent claims 1, 28, and 55 are allowable. Since any claim that

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depends from an allowable independent claim is also allowable, the Applicants respectfully submit that the Examiner should withdraw this rejection as to dependent claims 2-27, 29-54, and 56-57.

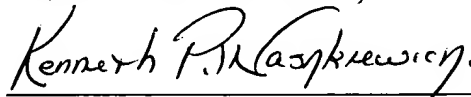
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AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for timely consideration of this Amendment under 37 C.F.R. §§ 1.16 and 1.17, including any extension of time, or credit any overpayment to Deposit Account No. 13-4500, Order No. 3037-4222.

Respectfully submitted,
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APPENDIX 1

MARKED-UP REWRITTEN CLAIMS

This appendix shows the changes made to each claim rewritten by this Amendment relative to the previous version of the claim. All additions are shown underlined (e.g., the) and all deletions are shown in brackets (e.g., [the]).

1. (Amended Two Times) A system for operation of a remotely located computer-controlled device, comprising[, in combination]:

receiver means for receiving at least one paging message [paging messages], said receiver means [being] co-located with said remotely located computer-controlled device;

means for comparing content data of [the contents of received ones of] said at least one paging message [paging messages] to a set of allowed commands; and

means for sending a specific command to said remotely located computer-controlled device, said specific command [being] determined as a result of the comparing of the content data [based on a match found between said received paging message contents and one of said allowed commands],

wherein said remotely located computer-controlled device performs at least two actions based on said specific command.

2. (Amended One Time) The system of claim 1, further comprising buffer means for receiving said at least one paging message from said receiver means.

3. (Amended One Time) The system of claim 1, wherein said means for sending further comprises command generation means for constructing said specific command to be forwarded to said remotely located computer-controlled device.

4. (Amended One Time) The system of claim 2, wherein said means for sending further comprises command generation means for constructing said specific command to be forwarded to said remotely located computer-controlled device.

9. (Amended One Time) The system of claim 1, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands.

10. (Amended One Time) The system of claim 4, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands.

12. (Amended One Time) The system of claim 11, further comprising buffer means for receiving said at least one paging message from said receiver means.

13. (Amended One Time) The system of claim 11, wherein said means for sending further comprises command generation means for constructing said specific command to be forwarded to

said remotely located computer-controlled device.

14. (Amended One Time) The system of claim 12, wherein said means for sending further comprises command generation means for constructing said specific command to be forwarded to said remotely located computer-controlled device.

19. (Amended One Time) The system of claim 11, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands.

20. (Amended One Time) The system of claim 14, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands.

22. (Amended One Time) The system of claim 21, wherein said means for creating said paging response message includes sensing means for determining a [the] state of said remotely located computer-controlled device.

23. (Amended One Time) The system of claim 21, wherein said means for creating said paging response message includes response receiving means for a response message from said remotely located computer-controlled device.

25. (Amended One Time) The system of claim 11, wherein said response paging message includes a success or failure [an] indication following [of the success or failure of the] execution of [at least one of] said specific command [commands].

26. (Amended One Time) The system of claim 11, wherein said response paging message includes a status [an] indication for [of the status of] said remotely located computer-controlled device.

27. (Amended One Time) The system of claim 11, wherein said response paging message includes data collected by or from said remotely located computer-controlled device.

28. (Amended One Time) A method for operation of a remotely located computer-controlled device, comprising [in combination, the steps of]:

receiving at least one paging message on a receiver means co-located with said remotely located computer-controlled device;

comparing content data [the contents of a received one] of said at least one paging message to a set of allowed commands; and

sending a specific command to said remotely located computer-controlled device, said specific command [being] determined as a result of the comparing of the content data [based on a match found between said received paging message contents and one of said allowed commands],

wherein said remotely located computer-controlled device performs at least two actions based on said specific command.

29. (Amended One Time) The method of claim 28, further comprising [the step of] buffering said at least one [received] paging message after [as] it arrives on the receiver means.

30. (Amended One Time) The method of claim 28, further comprising [the step of] formulating said specific command as a result of the comparing of the content data [from the result produced by the step of comparing].

31. (Amended One Time) The method of claim 29, further comprising [the step of] constructing said specific command as a result of the comparing of the content data [from the result produced by the step of comparing].

36. (Amended One Time) The method of claim 28, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands and the method performs the sending of said specific command for each match found as a result of the comparing of the content data [further including the step of performing said steps of comparing and sending until all of said allowed commands matched by said message contents have been sent].

37. (Amended One Time) The method of claim 31, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands and the method performs the sending of said specific command for each match found as a result of the comparing of the content data [further including the step of performing said steps of comparing and sending until all of said allowed commands matched by said message contents have been sent].

38. (Amended One Time) The method of claim 28, further comprising [the step of] sending at least one [a] response paging message.

39. (Amended One Time) The method of claim 38, further comprising [the step of] buffering said [received] at least one paging message after [as] it arrives on the receiver means.

40. (Amended One Time) The method of claim 38, further comprising [the step of] formulating said specific command as a result of the comparing of the content data [from the result produced by the step of comparing].

41. (Amended One Time) The method of claim 39, further comprising [the step of] constructing said specific command as a result of the comparing of the content data [from the result produced by the step of comparing].

46. (Amended One Time) The method of claim 38, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands and the method performs the sending of said specific command for each match found as a result of the comparing of the content data [further including the step of performing said steps of comparing and sending until all of said allowed commands matched by said message contents have been sent].

47. (Amended One Time) The method of claim 41, wherein the content data [said message contents] includes at least two allowed commands from the set of [more than one of said] allowed commands and the method performs the sending of said specific command for each match found as a result of the comparing of the content data [further including the step of performing said steps of comparing and sending until all of said allowed commands matched by said message contents have been sent].

48. (Amended One Time) The method of claim 38, wherein said step of sending a response paging method further includes [the step of] creating said at least one response paging [response] message.

49. (Amended One Time) The method of claim 48, wherein said step of creating said paging response message includes [the step of] sensing a [the] state of said remotely located computer-controlled device.

50. (Amended One Time) The method of claim 48, wherein said step of creating said at least one response paging [response] message includes [the step of] receiving a response message from said remotely located computer-controlled device.

51. (Amended One Time) The method of claim 38, wherein said at least one response paging message includes a security challenge message.

52. (Amended One Time) The method of claim 38, wherein said at least one response paging message includes a success or failure [an] indication following [of the success or failure of the] execution of [at least one of] said specific command [commands].

53. (Amended One Time) The method of claim 38, wherein said at least one response paging message includes a status [an] indication for [of the status of] said remotely located computer-controlled device.

54. (Amended One Time) The method of claim 38, wherein said at least one response paging message includes data collected by or from said remotely located computer-controlled device.

55. (Amended One Time) A system for operating a remotely located computer-controlled device, the remotely located computer-controlled device including a sensor and a control, [the

system] comprising:

a transceiver for receiving at least one received paging message and transmitting at least one transmitted paging message [paging messages], the transceiver co-located [being collocated] with said [the] remotely located computer-controlled device;

a comparator for comparing content data of said at least one [the contents of received components of a] received paging message to a set of allowed components;

a command generator for generating a command to the control [of the remotely located device], the command [being] determined as a result of the comparing of the content data [based on a match found between the received paging message and an authorized command;],

wherein the sensor records a status of the sensor [a status recorder for recording the status of the sensor of the remotely located device] after the generating of the command [is generated] and reports the [, after a period of time, reporting said] status to the [said] transceiver for inclusion in said at least one transmitted [transmission to the source of the] paging message, and

wherein said remotely located computer-controlled device performs at least two actions based on said specific command.

56. (Amended One Time) The [A] system of [as recited in] claim 55, wherein a duration of time between the sensor recording the status and the sensor reporting the status [said period of time] is a variable component of said at least one received paging message.

57. (Amended One Time) The [A] system of [as recited in] claim 55, wherein a duration of time

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between the sensor recording the status and the sensor reporting the status [wherin said period of time] is a predetermined minimum [period of time] for performance of said command by said remotely located computer-controlled device.

APPENDIX 2

MARKED-UP REPLACEMENT PARAGRAPHS IN THE SPECIFICATION

This appendix shows the changes made to each paragraph in the specification replaced by this Amendment relative to the previous version of the paragraph. All additions are shown underlined (e.g., the) and all deletions are shown in brackets (e.g., [the]).

REPLACE the paragraph beginning on page 5, line 4 with the following:

The received paging message 121 typically will contain either one or more pre-set commands 123 or trigger signals 124, or will contain at least one more sophisticated command string 125. Either numeric-only or alphanumeric paging systems may be employed, with the latter being particularly useful for an application utilizing the command string approach. The message may contain any number of components, likely including identifying and/or handshaking information as well as other security-required parameters in addition to the optional PIN already described. The duration that the message continues, or that particular components of the message continue, may also [be] have an information-containing function. In particular, it is anticipated that a minimum duration for the received message would be specified in order to ensure that the system is not accidentally activated by random noise or by interrupted messages that may not contain all the necessary information for completion of the task being initiated. It is also anticipated that for some commands a minimum duration that an action is to be performed at the target device 150 would be included as part of the command, also to ensure that the operation is not unintentionally triggered due to noise or environmental conditions.

REPLACE the paragraph beginning on page 7, line 10 with the following:

In the embodiment of Fig. 1, the paging message 121 is received by the paging receiver 110 into a signal buffer 120, which provides the received message 121 to a message compare function 130. While the signal buffer 120 is optional, in general it is a preferred part of the implementation as it ensures that the entire paging message 121 has been received before entry into the message compare function 130. The message compare function can be implemented in hardware or software. It is anticipated that the message compare function 130 would typically be implemented either in hardware/firmware or in software if the received paging message 121 contains a simple trigger signal 124, but would most likely be implemented in software if the received paging message is in the form of a command string 125 or has multiple components.

REPLACE the paragraph beginning on page 7, line 20 with the following:

In the embodiment of Fig. 1, the message compare function 130 matches each component of the received paging message 121 to a set of one or more known commands 131 or other expected components 132 of the message and sends at least one signal or command determined by the result of the matching process to the command signal generator 140. The command signal generator 140 is prompted by each signal or command received from the message compare function 130 to send out a signal or command that causes the desired action to take place at the target device 150. This could be a trigger signal for triggering an electronic or mechanical action, or could be a computer command that causes an operation to be performed in a software-

controlled component of the target device 150. Each command sent from the command signal generator 140 would cause a separate action or sequence of actions to be performed at or on the target device 150. The command signal generator [150] 140 is implemented in hardware or software depending on the type of message/signal received from the message compare function 130 and the type of output signal required to initiate the desired activity at the target device 150. Sensors (one sensor 150a shown) or external controls (one control 150b shown) may be associated with the target device 150 which may be accessed for performing a myriad of functions such as fire control, energy management, security control and the like. For some of these functions, it may be readily apparent that a two way application of the present invention may be advantageous over a one way paging for status monitoring and reporting.

REPLACE the paragraph beginning on page 9, line 16 with the following:

An alternate embodiment of the invention which allows responses to be generated by the system and/or to be forwarded from the target device is shown as a block diagram in Fig. 2. In the embodiment of Fig. 2, the paging message 221 is received by a two-way paging transceiver 210 into an optional signal buffer 220. Examples of suitable transceiver devices include, but are not limited to, those manufactured by Motorola such as the TANGO (TM) two-way pager which employs a ReFLEX (TM) messaging protocol. As in the embodiment of Fig. 1, the received message 221 is provided to the message compare function 230, which compares the message to a set of one or more known commands 231 and/or other components 232 and sends at least one signal or command determined by the result of the matching process to the optional command

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signal generator 240. The command signal generator 240, if present, is prompted by each signal or command received from the message compare function 230 to send out a signal or command that causes the desired action to take place at the target device 250.